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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/780,306	02/09/2001	Daniel Pompei Cedrone	1246.1	6764

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SUMMA & ALLAN, P.A.
11610 NORTH COMMUNITY HOUSE ROAD
SUITE 200
CHARLOTTE, NC 28277

EXAMINER

PICKARD, ALISON K

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/780,306

Applicant(s)

POMPEI, DANIEL

Examiner

Alison K. Pickard

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ML

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 10-16, 33 and 36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 10-16, 33 and 36 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7, 10, 11, 15, 16, 33, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhodes in view of Douglas.

Rhodes discloses a gravity hinge (fence and gate) consisting essentially of an upper cylindrical knuckle 7A having a first surface and an opposing second, oblique surface 28, a lower cylindrical knuckle having a first, oblique surface 24 and a second surface, and a spindle 23. The spindle extends from the first surface of the lower knuckle into a recess in the upper knuckle. The spindle can be integral with the lower knuckle. As seen in Figures 3 and 4, the knuckles are oblique across their entire surface. Rhodes does not disclose a polymeric, oblique bushing and sleeve within the upper knuckle. Douglas teaches a gravity hinge having an upper knuckle, lower knuckle, and spindle. Douglas teaches the use of a polymeric sleeve/bushing 10. The bushing 11 is between the two knuckles and reduces friction and wear between the metal components. The sleeve 10 is received in a knuckle and reduces friction and provides smooth rotation of the spindle (see col. 2, lines 42-48). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the hinge of Rhodes with the sleeve/bushing taught by Douglas to reduce friction, reduce, wear, and provide smooth rotation.

Regarding the requirement for an “oblique” bushing such that the bushing and knuckles form a continuous cylinder, it appears that Rhodes in view of Douglas would produce the claimed invention. Douglas teaches a bushing (flange) that is shaped to continuously contact the adjacent knuckle surfaces to form a continuous cylinder in a resting position (see Fig. 2). Also, since the surfaces of Rhodes’ knuckles are oblique, it is inherent the bushing would be too. Toedt provides evidence that it is known to use an “oblique” bushing between oblique knuckle surfaces in a gravity hinge.

Regarding the requirement for the sleeve to be within the upper knuckle, it appears Rhodes in view of Douglas would produce the claimed invention. While Douglas may show the sleeve in the lower knuckle, it is not limited to that location. It is well known in the art that a sleeve can be located in the upper and/or lower knuckle as evidenced by Rommelfaenger, Finkelstein, Takimoto, and Suska. Rhodes also shows that a sleeve can be located in the upper knuckle. Finally, Douglas shows a sleeve located in a knuckle that is not integral with the spindle. Since, the upper knuckle of Rhodes is not integral with the spindle, it would be obvious to place the sleeve in the upper knuckle.

Regarding claims 4, 5, and 7, Rhodes does not disclose that the lower knuckle has a recess for receiving the spindle. It is known in the art to make the hinge of 2 (i.e. the spindle integral with one of the knuckles) or 3 (i.e. two knuckles and a spindle) components as evidenced by Fletcher, Suska, Rodler, Booraem, Matyas, and Foltz (for example). Making the knuckle into separable parts (i.e. a spindle and hollow knuckle) is considered a design choice. See *In re Dulberg*, 129 USPQ 348, 349 (CCPA 1961). Therefore, it would have been obvious for one of

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ordinary skill in the art at the time the invention was made to modify the hinge such that the spindle is separate from the lower knuckle as such is a design choice known in the art.

3. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhodes in view of Douglas as applied to claim 1 above, and further in view of Gidseg (4,864,691).

Rhodes does not disclose the material of the knuckles. Gidseg teaches art equivalent materials for hinge knuckles (col. 11, lines 32-42). Gidseg teaches metal, polymers, and ceramics, as being equivalent materials for hinges. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to make the knuckles out of metal, ceramic, or polymers as such are suitable materials for hinges as taught by Gidseg.

Response to Arguments

4. Applicant's arguments filed 4-30-04 have been fully considered but they are not persuasive.

Note: Rhodes in view of McKinney, Toedt and Suska also discloses the claimed invention. Suska teaches a bushing/sleeve to reduce friction, wear, and noise.

In response to applicant's argument that Douglas teaches away from Rhodes (and Applicant's hinge), it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Douglas identifies that excessive wear is a problem in hinges (see col. 1, lines 32-34). Douglas uses the flanged sleeve to solve this problem. The sleeve reduces friction and wear between the knuckle end faces. It is this teaching that is being applied to Rhodes.

Further, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, Rhodes already teaches inclined surfaces (of knuckles). Further, Rhodes is not being applied to modify Douglas. Rather, Douglas is being applied for its teaching of the use of a flanged sleeve to reduce friction and wear.

5. The two declarations under 37 CFR 1.132 filed 4-30-04 have been fully considered but are insufficient to overcome the rejection of the claims based upon Rhodes, Douglas, and Gidseg as set forth in the Office action.

Specifically, the declarations fail to prove commercial success of Applicant's hinge relative to other hinges in the market (i.e. Applicant's %sales versus % of other hinges on the market or in the McMaster-Carr catalogue). Further, even if commercial success is shown, it needs to be shown that it is due to the invention itself and not rebates, promotions, price, advertising, etc.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after


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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 703-305-0882. The examiner can normally be reached on M-F (10-7:30), with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Alison K. Pickard
Primary Examiner
Art Unit 3676

AP